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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,490	12/06/2000	Daniel J. Miller	MSI-631US	1311

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LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA 99201

EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,490

Applicant(s)

MILLER ET AL.

Examiner

Haresh Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 32-48 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 and 32-48 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2, 3, 5 and 6.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-14, 32-48, are presented for examination. Claims 15-31 have been cancelled.

Election/Restrictions

2. Applicant's election, without traverse of Group I, i.e., claims 1-14 in Paper No. 7 is acknowledged.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should contain key concept terms of the claimed invention, i.e., "multimedia processing project" and "matrix switch".

Information Disclosure Statement

4. An initialed and dated copy of Applicant's IDS form 1449, Paper No. 2, 3, 5 and 6, is attached to the instant Office action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-12, 32-43, are software per se that is not tangibly embodied on a computer readable medium and therefore lacks a practical application because it alone cannot produce its intended outcome. The software object and media processing filter graph are software, which are not tangible embodied on a computer readable medium.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 3-14, are rejected under 35 U.S.C. 102(e) as being anticipated by Parry et al. 6,535,920 (Hereinafter Parry).

8. As per claim 1, 13 and 14, Parry teaches a computer system, a storage medium implementing instructions, and a software object for use in a media processing filter graph (e.g., the architecture of a filter graph to efficiently process the multimedia, col., 1, line 66 – col., 2, line 18), comprising:

an input (e.g., source filter, col., 21, lines 12 – 25), coupled to a media source (e.g., source filter coupled to a media source, col., 21, lines 12 – 25), to receive content from the media source (e.g., media contents processing by the source filter, col., 21, lines 12 – 25), and

a dynamically determined plurality of outputs (e.g., parser filter selecting outputs, col., 21, lines 12 – 25), each responsive to the input and coupled to a source processing chain (e.g., parser output based on the input of the media contents processed by the chain of filters, col., 21, lines 12 – 25), to provide each of the source processing chains with media content requested

Art Unit: 2154

from a single instance of the media source in accordance with a user defined media processing project (e.g., the architecture of a filter graph to efficiently process the multimedia data as per the user selection of the playback, col., 1, line 66 – col., 2, line 18).

9. As per claim 3, Parry teaches the following:

the number of outputs are dynamically determined by the number of independent processing chains required to process media content from the media source (e.g., filter graph dynamically allocating number of source processing filters, col., 21, lines 12 – 25).

10. As per claim 4, Parry teaches the following:

the source processing chains are comprised of filter graph filters which uniquely transform the media content in some way (e.g., use of transform filters, col., 20, lines 50 – 55).

11. As per claim 5, Parry teaches the following:

the object receives requests for media content from one or more of the source processing chains and satisfies said requests (e.g., filter graph filters processing multimedia contents as per the requests, col., 21, lines 12 – 25).

12. As per claim 6, Parry teaches the following:

the object issues seek commands to the media source to satisfy the request(s) for media content (e.g. processing of the seek commands to access media source contents by the filters, col., 22, lines 13 – 26).

Art Unit: 2154

13. As per claim 7, Parry teaches the following:

the object serializes simultaneous requests for media from the source received from multiple source chains (e.g., processing of the requests in order from several users by the delay filter using encoder and decoder, col., 6, lines 53 – 65).

14. As per claim 8, Parry teaches the following:

the interface prioritizes the serialized requests based, at least in part, on a relative project time of each of the requested clips (e.g., read/write synchronization for the time duration of the user playback time, col., 8, lines 49 – 65).

15. As per claim 9, Parry teaches the following:

the object receives request for media content from a user through a higher-level application (e.g., playback application, col., 4, lines 9 - 26), and issues a seek command to satisfy the request (e.g., user requesting a seek command for selective playback, col., 4, lines 9 – 26).

16. As per claim 10, Parry teaches the following:

multiple objects are invoked and coupled to an associated multiple instances of source filters to satisfy multiple simultaneous requests for content from the sources (e.g., multiple instances of the multimedia source processed by multiple source processing filters, col., 21, lines 12 – 25).

17. As per claim 11, Parry teaches the following:

Art Unit: 2154

the object is exposed by an operating system executing on a computing system implementing a media processing system (e.g., media processing filter graph exposed by Windows CE OS, col., 5, lines 11- 25).

18. As per claim 12, Parry teaches the following:

the object is an instance of a segment filter exposed to a media processing system executing on a computer system through a render engine (e.g., media processing filter graph exposed by Windows CE OS using render engine, col., 5, lines 11- 25).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of "Official Notice".

21. As per claim 2, Parry does not specifically mention about alleviating each source processing chain from opening an independent instance of the source. "Official Notice" is taken that both the concept and advantages of alleviating each source processing chain from opening an independent instance of the source is well known and expected in the art.

Art Unit: 2154

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include alleviating each source processing chain from opening an independent instance of the source with the teachings of Parry in order to facilitate minimum usage of the memory used by the processing filters. The well-known concept of creating the minimum number of instances of the software object will save memory usage and will improve the processing of the filter graph.

22. Claims 32-36, 38-44, are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of Hunt et al. 6,442,658 (Hereinafter Hunt).

23. As per claims 32 and 44, Parry teaches the claimed limitation as rejected under claim 1, and processing of the media source using the processing chain filters that can be used to efficiently provide source contents to the users. However, Parry does not specifically mention about use of matrix switch. It is well-known in the art of the use of matrix switch concept, for example, Hunt teaches a scalable, dynamically reconfigurable matrix switch having a plurality of inputs and a plurality of outputs (e.g., dynamic selection of inputs and outputs of the segments to improve playback of interactive multimedia contents, col., 12, lines 6 – 58),

at least one matrix switch input being communicatively linked with a first processing chain portion (e.g., segment inputs that can be partial or complete from the same segment or the other segment, figure 6, col., 12, lines 6 – 58),

the matrix switch being configured to dynamically couple one or more of the matrix switch inputs to one or more of the matrix switch outputs (e.g., segment configuring inputs to the outputs, figure 6, col., 12, lines 6 – 58).

Art Unit: 2154

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teachings of Parry with the teachings of Hunt in order to facilitate processing of the media source contents using a matrix switch of the source processing chain filters. The switching mechanism will provide multiplexing the contents of the inputs to generate the output to improve playback of multimedia contents, as suggested by Hunt.

24. As per claims 33, 45, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of a media time associated with the user defined media processing project (e.g., media content clip timing, col., 21, lines 12 – 25).

25. As per claims 34, 46, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of a project time associated with the user defined media processing project (e.g., user request containing playback timing information, col., 21, lines 12 – 25).

26. As per claims 35, 47, Parry and Hunt teach the claimed limitation as rejected under claim 32, and processing of the media source using the processing chain filters that can be used to efficiently provide source contents to the users. However, Parry does not specifically mention about use of matrix switch programming grid. It is well-known in the art of the use of matrix switch concept, for example, Hunt teaches usage of a matrix switch programming grid (e.g., dynamic selection of inputs and outputs of the segments to improve playback of interactive multimedia contents, figure 6, col., 12, lines 6 – 58),

Art Unit: 2154

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teachings of Parry with the teachings of Hunt in order to facilitate processing of the media source contents using a matrix switch programming grid of the source processing chain filters. The switching mechanism will provide multiplexing the contents of the inputs to generate the output to improve playback of multimedia contents, as suggested by Hunt.

27. As per claims 36, 48, Parry and Hunt teach the claimed limitation as rejected under claim 32, and processing of the media source using the processing chain filters that can be used to efficiently provide source contents to the users. Parry also teaches use of a project time associated with the user defined media processing project (e.g., user request containing playback timing information, col., 21, lines 12 – 25). However, Parry does not specifically mention about use of matrix switch programming grid. It is well-known in the art of the use of matrix switch concept, for example, Hunt teaches usage of a matrix switch programming grid (e.g., dynamic selection of inputs and outputs of the segments to improve playback of interactive multimedia contents, figure 6, col., 12, lines 6 – 58),

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teachings of Parry with the teachings of Hunt in order to facilitate processing of the media source contents using a matrix switch programming grid of the source processing chain filters. The switching mechanism will provide multiplexing the contents of the inputs to generate the output to improve playback of multimedia contents, as suggested by Hunt.

Art Unit: 2154

28. As per claim 38, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of the number of software object outputs are dynamically determined by the number of independent processing chains required to process media content from the media source (e.g., filter graph dynamically allocating number of source processing filters, col., 21, lines 12 – 25).

29. As per claim 39, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of the object receives requests for media content from one or more of the source processing chains and satisfies said requests (e.g., filter graph filters processing multimedia contents as per the requests, col., 21, lines 12 – 25).

30. As per claim 40, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of the object issues seek commands to the media source to satisfy the request(s) for media content (e.g. processing of the seek commands to access media source contents by the filters, col., 22, lines 13 – 26).

31. As per claim 41, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of the object serializes simultaneous requests for media from the source received from multiple source chains (e.g., processing of the requests in order from several users by the delay filter using encoder and decoder, col., 6, lines 53 – 65).

Art Unit: 2154

32. As per claim 42, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of the interface prioritizes the serialized requests based, at least in part, on a relative project time of each of the requested clips (e.g., read/write synchronization for the time duration of the user playback time, col., 8, lines 49 – 65).

33. As per claim 43, Parry and Hunt teach the claimed limitation as rejected under claim 32. Parry also teaches use of the object is an instance of a segment filter exposed to a media processing system executing on a computer system through a render engine (e.g., media processing filter graph exposed by Windows CE OS using render engine, col., 5, lines 11- 25).

34. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parry and Hunt in view of “Official Notice”.

35. As per claim 37, Parry and Hunt do not specifically mention about alleviating each source processing chain from opening an independent instance of the source. “Official Notice” is taken that both the concept and advantages of alleviating each source processing chain from opening an independent instance of the source is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include alleviating each source processing chain from opening an independent instance of the source with the teachings of Parry and Hunt in order to facilitate minimizing usage of memory used by the processing filters. The well-known concept of creating the minimum number of instances of the software object will save memory usage and will improve the processing of the filter graph.

Art Unit: 2154

Conclusion

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form PTO-892. The claimed subject matter of applications, "Methods and systems for processing media content", Miller et al., US 2002/0097256 A1, Jul. 25, 2002, and "Interface and related methods for reducing source accesses in a development system", Miller et al., US 2002/0097257 A1, Jul. 25, 2002, also contain use of media processing project and filter graph.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (703) 605-5234. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Haresh Patel

April 4, 2004.



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100